

WITH THE MEDICAL OFFICER OF HEALTH'S COMPLIMENTS.

ELEVENTH

Annual Report

OF THE

HEALTH

OF THE

Urban and Port Sanitary District of Barry,

FOR THE YEAR 1899.

BY

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MEDICAL OFFICER OF HEALTH.

Printed by Order of the Sanitary Authority.

BARRY :

BEES JONES, PRINTER AND STATIONER.

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Medical Officer of Health's Department.

Medical Officer of Health :

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Assistant Sanitary Inspector :

C. HOCKLEY, Cert. San. Inst.

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F. S. LEYSHON,

BARRY URBAN SANITARY AUTHORITY.



To the Chairman and Councillors of the Barry District Council.

GENTLEMEN,

I have the honour of submitting to you my Report for the year 1899, and of laying before you the usual tables of vital statistics.

By General Order of the Local Government Board dated March 23rd, 1891, it is prescribed that every Medical Officer of Health shall:—

“Make an Annual Report to the Sanitary Authority up to the
“end of December in each year, comprising a summary of the action
“taken, or which he has advised the Sanitary Authority to take
“during the year for preventing the spread of disease, and an account
“of the sanitary state of his district generally at the end of the year.

“The report shall also contain an account of the enquiries made
“as to conditions injurious to health existing in this district, and of
“the proceedings in which the Medical Officer of Health has taken
“part or advised under the Public Health Act, 1875, or under any
“other Act of Parliament relating to sanitary matters.

“ Also an account of the supervision exercised by him or on his
 “ advice, for purposes, over places or houses that the Sanitary
 “ Authority have power to regulate, with the nature and results of
 “ any proceedings which may have been so required and taken in
 “ respect of the same during the year.

“ The report shall also record the action taken by him or on his
 “ advice during the year, in regard to offensive trades, to dairies,
 “ cowsheds, and milk-shops, and for factories and workshops.

“ The report shall also contain tabular statements of the sickness
 “ and mortality within the District, classified according to diseases,
 “ ages and liabilities.

The Urban Sanitary District of Barry comprises an area of 4,104
 acres, density of population equals 7·13 persons per acre.

VITAL STATISTICS.

POPULATION.

The population of the District of Barry in the middle of the year
 1899 was 29,285, and the rates given in this report have been
 calculated on this basis.

The census return of April, 1891, gave the population of Barry as
 12,665; the total increase between the census of 1881 and 1891 was
 12,165, and the increase between 1891 and 1899, 17,731.

The average number of inmates per house was, according to the
 census of 1891, equal to 6·30; the average number in the middle of
 1899 was 6·0.

CENSUS FOR 1899.

Wards.	Inhabited Houses.	Vacant & Lock-up Shops.	Building.	Total.	Population.
EAST	902	274	32	1,208	5,412
WEST	1,309	202	12	1,523	7,854
NORTH	1,373	176	83	1,632	8,238
SOUTH	1,482	222	10	1,714	8,892
TOTAL	5,066	*874	137	6,077	30,396
Mean Floating Population					1,040
Total Population					31,436

* 38 of these are Lock-up Shops.

CENSUS FOR 1898.

Wards.	Inhabited Houses.	Vacant & Lock-up Shops.	Building.	Total.	Population.
EAST	954	193	23	1,170	5,628
WEST	1,222	176	66	1,464	7,210
NORTH	1,289	68	115	1,472	7,605
SOUTH	1,363	262	94	1,719	8,042
TOTAL	4,828	*699	298	5,825	28,485
Mean Floating Population					800
Total Population					29,285

* 40 of these are Lock-up Shops

Table I. shows the number of houses inhabited, &c., during the years 1892-99.

TABLE I.

Years.	No. of Houses Inhabited.	No. of Houses Uninhab'd.	No. of Houses in Constr'ction	Total.
1892	2,626	837	43	3,506
1893	2,890	637	88	3,615
1894	3,357	316	77	3,750
1895	3,738	141	133	4,012
1896	4,027	83	310	4,420
1897	4,431	436	339	5,206
1898	4,828	699	298	5,825
1899	5,066	874	137	6,077

Table II. gives the total number of plans for new houses passed by the District Council during the years 1891-99.

TABLE II.

Years.	No. of Plans passed.	Remarks.
1891	1,111	From Dec., 1890, to Dec., 1891
1892	346	" 1891, " 1892
1893	161	" 1892, " 1893
1894	204	" 1893, " 1894
1895	377	" 1894, " 1895
1896	1,031	" 1895, " 1896
1897	1,614	" 1896, " 1897
1898	591	" 1897, " 1898
1899	514	" 1898, " 1899

MARRIAGES.

The total number of marriages during the year 1899, as furnished by Mr. H. L. Jones, District Registrar, was 139, corresponding with a rate of 4.74.

Table III. gives the number of marriages in the Urban District of Barry, together with the rate of persons married per 1,000 of the population of Barry, and in England and Wales.

TABLE III.

Year.	No. of Marriages.	Rate per 1,000 persons living.	
		Barry.	England and Wales.
1891	77	4·97	15·6
1892	67	4·82	15·4
1893	93	5·57	14·7
1894	87	4·71	15·1
1895	98	4·22	14·9
1896	126	5·42	15·1
1897	106	3·93	16·8
1898	122	4·49	15·4
1899	139	4·74	

BIRTHS.

The births registered during the year were 1,232; of these 677 were males and 555 females. The birth-rate was 42·0 per 1,000 living, as compared with 29·3 the rate of England and Wales.

It must, however, be remembered that this birth-rate is calculated on the estimated total population, which includes 800 seamen, the average number constantly in the Port whose families reside elsewhere, and who do not contribute to the birth-rate. If we deduct these 800 from the total population and estimate the birth-rate with the population proper, the rate would be 43·3.

Table IV. shows the population, the births and deaths, excess of deaths over births, and the excess of births over deaths annually.

TABLE IV.

Year.	Population	Births	Deaths	Excess of Deaths over Births	Excess of Births over Deaths
1889	10,500	327	120	Nil.	207
1890	11,900	447	151	"	296
1891	12,665	609	204	"	405
1892	13,881	744	238	"	506
1893	16,695	753	231	"	522
1894	19,263	703	210	"	493
1895	23,228	891	345	"	546
1896	26,975	1,039	361	"	678
1897	27,169	1,059	428	"	631
1898	29,285	1,155	434	"	721
1899	31,436	1,232	502	"	730

Table V. shows the comparisons of births and deaths in the District in successive years.

TABLE V.

Year.	Births.	Birth-rate per 1,000 inhabitants	Deaths from all causes.	Death-rate per 1,000 inhabitants	Death-rate from the seven chief Zymotic Diseases per 1,000 inhabitants	Deaths under one year per 1,000 births registered.	
						Barry.	England and Wales.
1889	327	31.1	120	11.4	1.4	168	169
1890	447	34.6	151	11.7	1.7	136	130
1891	609	45.2	204	15.1	1.8	118	150
1892	744	53.6	238	17.1	2.9	112	149
1893	753	45.1	231	13.2	1.8	151	159
1894	703	36.4	210	10.9	0.6	110	137
1895	891	38.3	345	14.8	1.8	181	161
1896	1,039	44.7	361	15.5	1.2	158	148
1897	1,059	39.2	428	15.8	1.8	186	145
1898	1,155	42.5	434	15.9	2.3	150	160
1899	1,232	42.0	502	17.1	3.5	194	163
Mean of 11 years }	814	41.2	293	14.4	1.9	151	152

DEATHS.

During the year 1899, 502 deaths were registered in the District, of these 272 were males and 230 females. The excess of births over deaths being 730. The death-rate was equal to 17.1 per 1,000 of the population, as compared with 15.9 in 1898. The rate of England and Wales in 1899 was 18.3.

The number of deaths from the seven chief zymotic diseases during the same period was 103, death-rate 3·5 per 1,000 persons living, as compared with 2·3 in 1898. The rate in England and Wales was 2·21.

FIRST QUARTER.—The number of deaths registered during the 13 weeks ending April 1st, 1899, at all ages and from all causes was 115, corresponding to an annual death-rate of 15·7 per 1,000 living, compared with 18·6 the rate of the first quarter of 1898, and with 18·9 the mean rate in the first quarter in England and Wales.

The deaths from the seven chief zymotic diseases during the first quarter were 15, being equal to an annual death-rate of 2·0 per 1,000, as compared with 1·7 the rate in the first quarter of last year, and with 1·36 the rate of England and Wales.

SECOND QUARTER.—During the quarter ending July 1st, 1899, 97 deaths were registered, corresponding to an annual rate of 13·2 per 1,000 as compared with 12·3 the rate in the second quarter of previous year, and with 16·6 that of England and Wales.

The deaths from the seven chief zymotic diseases in the same quarter were 11, corresponding to an annual rate of 1·5 per 1,000 as compared with 1·0 the rate in the second quarter of previous year, and with 1·34 that of England and Wales.

THIRD QUARTER.—The deaths registered in the quarter ending September 30th, 1899, were 193, corresponding to an annual death-rate of 26·4 per 1,000, compared with 16·4 in the third quarter of preceding year, and with 19·2 that of England and Wales.

The deaths from the seven chief zymotic diseases were 68, being equal to an annual death-rate of 9·2 per 1,000, as compared with 3·5 the average rate in the third quarter of previous year, and 4·35 that of England and Wales.

FOURTH QUARTER.—The number of deaths registered during the quarter ending December 31st, 1899, were 97, being in the proportion of 13·2 deaths annually per 1,000 persons living, compared with 16·3 the mean rate of the fourth quarter of last year, and 18·6 that of England and Wales.

The deaths from the seven chief zymotic diseases were 9, being equal to an annual death-rate of 1·2 per 1,000, as compared with 2·7 per 1,000 the rate of the fourth quarter of last year, and with 1·70 that of England and Wales.

INQUESTS.—Inquests were held in 39 instances during the year.

The deaths at all ages were :—

Under one year of age	...	...	...	240
One year and under five years	...	...	...	80
Five years and under fifteen years	...	...	...	19
Fifteen years and under twenty-five years	...	...	...	15
Twenty-five years and under sixty years	...	...	...	91
Sixty years and upwards	...	...	...	57
				<hr/> 502 <hr/>

The proportion of deaths under one year of age per 1,000 births will be seen in Table V., also that of England and Wales.

Table VI. shows the chief causes of death amongst infants under one year of age.

TABLE VI.

Causes of Deaths.				Number of Deaths under one year of age.
Scarlet Fever ..	...	...	...	1
Whooping Cough	...	...	...	9
Diphtheria	...	...	...	2
Diarrhœa	...	...	...	43
Erysipelas	...	...	...	1
Tabes Mesenterica	...	...	...	6
Tubercular Meningitis	...	...	...	3
Phthisis	...	...	...	2
Tuberculosis	...	...	...	4
Premature Birth	...	...	...	20
Spina Bifida	...	...	...	1
Other Congenital Defects	...	...	...	3
Diseases of Nervous System	...	...	...	42
Diseases of Circulatory System	...	...	...	2
Diseases of Respiratory System	...	...	...	24
Diseases of Digestive System	...	...	...	53
Diseases of Integumentary System	...	...	...	1
Violence	...	...	...	1
Ill-defined and not specified causes	...	...	...	22
Total	...	...	...	240

Table VII. shews the number of deaths registered in each Ward during the year.

TABLE VII.

<i>Wards.</i>	<i>Zymotic Diseases.</i>	<i>Parasitic Diseases.</i>	<i>Dietic Diseases.</i>	<i>Constitutional Diseases.</i>	<i>Developmental Diseases.</i>	<i>Local Diseases.</i>	<i>Violence.</i>	<i>Ill-Defined, &c.</i>	<i>Total.</i>	<i>Death-Rate per 1,000 Population.</i>
East	10	...	...	5	6	60	4	4	89	3.0
West	12	...	...	16	14	48	1	5	96	3.3
North	47	...	1	24	15	69	7	9	172	5.9
South	35	...	...	17	7	61	13	12	145	4.9
Total	104	...	1	62	42	238	25	30	502	1.17

ZYMOTIC DISEASES.

The 502 deaths from all causes included :—

1	attributed to	Scarlet Fever.
15	„	Whooping Cough.
30	„	Diphtheria.
1	„	Enteric Fever.
56	„	Diarrhœa.

It has been my custom to show in detail the number of deaths from the seven chief zymotic diseases for the past few years, also the zymotic death-rate, and the general death-rate, so that a comparison may be easily made for these rates from year to year.

The following Table will show the number of deaths in each year from the seven chief zymotic diseases, as well as the various death-rates for the past ten years :—

			1890	1891	1892	1893	1894	1895	1896	1897	1898	1899
Small Pox	...	...	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
Measles	...	...	10	1	nil	4	nil	4	6	11	1	nil
Scarlet Fever	...	...	1	8	15	2	2	2	6	5	1	1
Diphtheria	...	...	2	1	4	7	3	4	3	3	22	30
Whooping Cough	...	...	1	4	11	2	1	3	3	9	10	15
Fevers of a continued character	Typhus	...	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil
	Enteric	...	nil	4	2	3	nil	4	3	6	4	1
	Doubtful	...	1	nil	nil	nil	nil	nil	nil	nil	nil	nil
Diarrhœa and Dysentery	...	...	7	8	9	12	5	20	7	22	27	56
Deaths from the seven chief Zymotic Diseases			22	26	41	30	11	37	28	56	65	103
Deaths from all causes	...	...	151	204	238	231	210	345	361	428	434	502
Death-rate from seven chief Zymotic Diseases per 1,000			1.7	1.8	2.9	1.7	0.5	1.5	1.2	1.8	2.3	3.5
Death-rate from all causes per 1,000			11.7	15.1	17.1	13.8	10.9	14.8	15.5	15.8	15.9	17.1

From the above Table it will be seen that the general death-rate for the District from all causes for 1899 was 1.2 higher than 1898; the rate for zymotic diseases (3.5) is also higher for 1899 than the rate for the same class of disease (2.3) in 1898. This increase for 1899 was due to the unusual mortality which occurred in the first quarter from Diphtheria, from which thirty cases ended fatally, and from Diarrhœa in the third quarter when fifty-six deaths resulted from the latter disease, forty-three being under one year of age. It will be seen that fifteen deaths occurred from Whooping Cough. I shall refer more in detail to these diseases further on in this report.

During the year 319 cases of Infectious Diseases were reported to me by the Medical Practitioners under the provisions of the Infectious Diseases Notification Act, on form supplied by the Sanitary Authority, as against 250 in 1898.

Table VIII. shows the number of cases reported under the Notification Act, and the deaths during each month in the year 1899 :—

TABLE VIII.

<i>Months.</i>	<i>Small Pox.</i>		<i>Diphtheria.</i>		<i>Membranous Croup.</i>		<i>Erysipelas.</i>		<i>Scarlet Fever.</i>		<i>Enteric or Typhoid Fever.</i>		<i>Continued Fever.</i>		<i>Puerperal Fever.</i>	
	<i>Deaths.</i>	<i>Cases Reported.</i>	<i>Deaths.</i>	<i>Cases Reported.</i>	<i>Deaths.</i>	<i>Cases Reported.</i>	<i>Deaths.</i>	<i>Cases Reported.</i>	<i>Deaths.</i>	<i>Cases Reported.</i>	<i>Deaths.</i>	<i>Cases Reported.</i>	<i>Deaths.</i>	<i>Cases Reported.</i>	<i>Deaths.</i>	<i>Cases Reported.</i>
January	3	14	...	1	...	2	...	4	...	1	...	...	...	...
February	9	45	1	1	...	5	1	14	...	1	...	...	1	1
March	...	1	1	33	...	...	1	3	...	15	...	...	...	...	...	...
April	1	14	...	...	...	3	...	2	...	...	...	...	...	...
May	...	1	4	12	...	...	...	2	...	3	...	...	...	...	...	...
June	...	1	3	11	...	...	...	3	...	7	...	3	...	...	...	...
July	3	8	...	1	...	1	...	4	1	1	...	1	...	...
August	3	11	...	...	...	1	...	14	...	2	...	...	...	...
September	4	...	...	...	4	...	5	...	6	...	...	...	1
October	2	3	...	...	...	2	...	9	...	1	...	...	...	...
November	2	...	...	...	7	...	6	...	2	...	...	...	...
December	...	4	1	1	1	1	...	3	...	9	...	2	...	...	...	...
Total for year 1899	...	7	30	158	2	4	1	36	1	92	1	19	...	1	1	2

Table IX. shows the distribution of Infectious Diseases notified in each Ward :—

TABLE IX.

<i>Localities.</i>				NOTIFIED DISEASES.						
				<i>Small Pox.</i>	<i>Diphtheria.</i>	<i>Membranous Croup.</i>	<i>Erysipelas.</i>	<i>Scarlet Fever.</i>	<i>Enteric or Typhoid Fever.</i>	<i>Puerperal Fever.</i>
District	...	...	7	158	4	36	92	19	2	1
East	..	...	...	16	...	6	22	2	1	...
West	...	...	...	8	...	7	7	4	1	...
North	...	...	3	76	...	11	30	5	...	...
South	...	...	4	58	4	12	33	8	...	1

Table X. shows the distribution of Mortality from the seven chief zymotic diseases, from Phthisis, from diseases of the respiratory organs, and from Tuberculosis in each street in the district during the year 1899.

TABLE X.

STREET.	<i>Small Pox.</i>	<i>Measles.</i>	<i>Scarlet Fever.</i>	<i>Diphtheria.</i>	<i>Whooping Cough.</i>	<i>Fever.</i>	<i>Diarrhea.</i>	<i>Phthisis.</i>	<i>Respiratory Diseases.</i>	<i>Tuberculosis.</i>	<i>Total.</i>
Bassett Street ...								1	2		3
Barry Road ...							2	1	1		4
Broad Street ...								2	1		3
Brook Street ...				3			4		1		8
Burlington Street							3	2			5
Castle Street ...							1				1
Cora Street ...					1						1
Clive Road ...							2	1			3
Commercial Road							1				1
Chilcote Street ..					1						1
Colebrook Road ..									1		1
Church Road ...				1			1		2	1	5
Churchill Terrace			1								1
Cross Street ...				1			1		2		4
Castleland Street...				2	1		1				4
Cyril Street ...				1							1
Davies Street ...				2							2
Daniel Street ...					1		1				2
Dock View Road							1		1		2
Edward Street ...									1		1
Evan Street ...				1				1			3
Fairford Street ...								2			2
Forster Street ...									2		2
Gaen Street ...									1		1
George Street ...				1			1		2		4
Glamorgan Street								1			1
Graving Dock Street				1	3		1		2		7
Gilbert Street ...							1		2		3
Guthrie Street ...				2	1		1		1	2	7
Gwenllian Street...							1				1
Harvey Street ...							1		6		7
High Street ...							1	1	1	2	5
Hirwain Street ...							2				2
Holton Road ...					1		1	4	6		12
Holmes Street ...									1		1
Jewel Street ...				1							1

TABLE X. (continued).

STREET.	<i>Small Pox.</i>	<i>Measles.</i>	<i>Scarlet Fever.</i>	<i>Diphtheria.</i>	<i>Whooping Cough.</i>	<i>Fever.</i>	<i>Diarrhoea.</i>	<i>Phthisis.</i>	<i>Respiratory Diseases.</i>	<i>Tuberculosis.</i>	<i>Total.</i>
John Street ...									1		1
Kathleen Street ...									2		2
Kingsland Crescent							2		2		4
Laura Street ...									1		1
Lewis Street ...									2		2
Llewellyn Street ...							1		1		2
Lombard Street ...							1	1			2
Llanover Street ...							1				1
Main Street ...							1			1	2
Maesycwm Street				1				1			2
Melrose Street ...									1		1
Merthyr Street ...							1		1		2
Milward Road ...							2				2
Morel Street ...				4	3			1	1	1	10
Newland Street ...							1				1
Newton Street ...							1				1
Norwich Road ...									1		1
Park Crescent ...					1						1
Palmer Street ...									1		1
Phyllis Street ...							1		1		2
Porthkerry Road...							1				1
Princes Street ...								1	2		3
Pyke Street ...				2			2		1		5
Queen Street ...				1		1	1	1	2	1	7
Quarella Street ...				2							2
Regent Street ...					1		1				2
Richard Street ..				1			1				3
Salisbury Road ...									1		1
Station Street ...				1			1	1	1		4
Sydenham Street..							2		2		4
Thompson Street							1				1
Treharne Road ...							1				1
Trinity Street ...							1		1		2
Tynwydd Road ...							1		2	1	4
Woodland Road ...				2			2	1			5
Wyndham Street...									1		1
York Place ...					1						1
Total ...			1	30	15	1	56	23	65	9	200

Table XI. gives the death-rate from constitutional, developmental, and local diseases, and from violent deaths during the years 1890 and 1899 inclusive.

TABLE XI.

Year.	Class IV.		Class V.		Class VI.		Class VII.	
	Constitutional Death-rate.		Developmental Death-rate.		Local Death-rate.		Violent Death-rate.	
1890	2·63		0·69		4·11		1·31	
1891	2·30		0·96		7·64		0·89	
1892	1·87		1·29		9·22		0·86	
1893	1·85		1·22		9·58		0·42	
1894	2·08		0·73		5·86		0·93	
1895	2·37		1·03		7·45		0·78	
1896	2·23		1·46		7·92		1·03	
1897	2·26		0·85		7·74		0·74	
1898	2·42		1·32		7·65		0·88	
Mean of 9 years ...	2·22		1·06		7·13		0·87	
1899	2·12		1·43		8·12		0·88	

The following brief statements as to the outbreaks of zymotic diseases in 1899 and the means taken to prevent the spread of such diseases may be of interest.

SMALL POX.

Seven cases of Small Pox occurred during the year, three of whom were seamen, the remaining four were residents of the district.

The first case occurred on March 6th. On this date, Daniel Hostler, cook of the schooner "Bessie," was reported to be ill, and upon examination I found him to be suffering from Small Pox. I ordered him to be at once removed to the Hospital, and the vessel was thoroughly fumigated, and all the effects of the crew were taken ashore

and disinfected. The crew who were four in number were all re-vaccinated. The vessel was daily visited while in this Port, and no other case occurred. I made strict enquiries as to how the disease was contracted, but could obtain no positive proof as to its origin. The man probably contracted it at Antwerp, which Port the vessel left on the 25th February, and called at Portsmouth on its way to Barry.

The second case occurred on May 31st. George Kemp, the chief officer of S.S. "Queen Mary" was reported to be suffering from an eruptive fever, which upon examination I found to be Small Pox. He was immediately removed to Hospital, the ship thoroughly fumigated, and all infected articles of clothing, &c., were either disinfected or destroyed. All members of the crew who would consent were re-vaccinated. On making enquiries as to the origin of the disease, I obtained the following particulars: the vessel called at Rangoon on March 17th, and left that Port on March 31st. At that time Small Pox was reported to be prevalent there, but none of the crew went on shore except the master, who was vaccinated at that Port. On March 12th, Thomas Barclay, aged 24, 4th engineer, was taken ill, and on the following day John Duncan, aged 30, 3rd engineer, fell sick; both were suffering from an eruptive fever. The vessel's next port of call was Suez, which was reached on April 22nd, the vessel leaving the same day. Port Said was reached on April 23rd, and the men were there medically attended and reported to be suffering from Chicken Pox, but which was most likely Small Pox, and it is highly probable that George Kemp the chief officer, who developed symptoms of Small Pox while the ship was at Barry Docks, contracted the disease from Duncan and Barclay the engineers, who had re-covered. When the vessel arrived at Barry they left for their homes, and I at once informed the Sanitary Authorities of the Districts to which the men went. The ship was visited daily, and no further case occurred while in this Port. George Kemp, just previous to developing symptoms of Small Pox while at Barry, visited two houses in the District, and these premises were thoroughly disinfected, and kept under observation for eighteen days.

The third case occurred on June 16th. Robert Weatherall, aged 19, an apprentice on the S.S. "Pearlmoor" was reported to be ill, and upon examination I found him to be suffering from Small Pox. He

was immediately removed to Hospital, and the vessel was thoroughly fumigated and all infected articles of clothing, &c., were burnt or disinfected. The vessel arrived at Barry from Rotterdam on June 15th, and the crew were reported to be all well. On June 16th I made further enquiries and ascertained that three other apprentices had been unwell. They were living in the same apartment with Robert Weatherall, and during the voyage had an eruption on the face. They were all able to work during the whole time, and they received no medical treatment. The chief officer reported that he himself had suffered during the voyage from Malarial Fever, but there had been no other sickness during the voyage, and the vessel had not called at any infected Ports.

The fourth case of Small Pox was that of a female resident living at No. 201, Holton Road. It was reported to me on the 16th December. The patient was immediately removed to the Small Pox Hospital, and the house and all articles of bedding, clothing, &c., were thoroughly disinfected or destroyed. Upon making enquiries into the origin of the disease I found that the patient's brother, employed in the Telegraph Department of the General Post Office, Cardiff, had been suffering from what was supposed to be Chicken Pox, but which in all probability was modified Small Pox. I further ascertained that he was taken ill on the 16th November and seen by a Medical Practitioner at Barry on the 19th, where his brother who resides at Bridgend visited him; the latter also developed symptoms like Small Pox. Davies was also visited by a school teacher living in Woodland Road, he was afterwards taken ill and attended by a Medical Practitioner on the 10th December, he too showed symptoms of what was probably mild Small Pox. Several other persons visited the house previous to the disease being notified. Their houses, clothes, &c., were all disinfected, and as many residents in each house as would consent to the operation were re-vaccinated, and all were kept under careful observation. I communicated with all Sanitary Authorities concerned and issued a circular letter to all the Doctors in this District asking them (as there had been a great deal of communication with others before the nature of the disease was ascertained) to be specially vigilant in detecting any further case that might occur in their practice.

The fifth case occurred on the 28th December. A girl who was a servant living at No. 201, Holton Road, left the latter address on the 16th December and went to her home at No. 17, Wynd Street, where she was kept under careful observation. On the 23rd December she showed symptoms of Small Pox, and was removed to the Hospital on the 28th ultimo. The whole of the family had been previously re-vaccinated by me.

On the 29th another case occurred. A married woman living at No. 8, Court Road, was taken ill with symptoms of Small Pox on the 25th December and was removed to the Hospital on the 29th. The whole of the family were re-vaccinated. On making enquiries as to how the patient contracted the disease, I ascertained that a young person, a teacher of music, who was at that time living at 8, Court Road, had a few days previously bought some copies of music at No. 201, Holton Road, and it is probable that the infection was carried by the paper.

The seventh and last case was reported on the 31st December and removed to the Hospital the same day. The patient was a married woman residing at No. 6, Lower Pike Street, near to No. 201, Holton Road, which house she visited on two occasions, viz.: the 14th and 23rd ultimo. She was taken ill on the 27th December, the rash appearing on the 31st. No further cases of Small Pox have since occurred.

In each case the clothes and all infected articles were either disinfected or destroyed. The infected rooms were immediately after the removal of the patients, subjected to the following process: they were first thoroughly fumigated with sulphurous acid, the walls and ceiling were then saturated with a strong solution of carbolic acid, and afterwards well scraped, then again washed with the same solution, and finally coated with a solution of recently burnt quick-lime; the doors, window frames, floors and all woodwork were first washed with a solution of corrosive sublimate, then thoroughly scrubbed with hot soda water and carbolic soap.

Every precaution was taken during the outbreak of Small Pox to prevent the disease spreading. All the houses in the streets where the cases occurred, also those in the adjacent streets, were visited, and the strictest enquiries were made, and all measures taken to prevent any case escaping detection. Much credit is due to your District Inspectors for the prompt and efficient manner in which they carried out every precautionary measure to check the spread of the disease.

In the three first cases, each of the patients bore three scars from vaccination in infancy, and in each case the attack of Small Pox was of a mild type.

In case 4 the patient had only one very indistinct mark from vaccination in infancy, and suffered from a severe attack of the confluent type.

In case 5 no evidence existed of vaccination, but the patient was vaccinated immediately after being exposed to infection from Small Pox. Four days after vaccination symptoms of Small Pox were manifest.

In cases 6 and 7 each patient bore three scars from vaccination in infancy, and both cases were of a mild type.

These facts demonstrate how desirable it is for people to be re-vaccinated, the adult cannot reasonably expect immunity from Small Pox when they have only been vaccinated in early infancy.

MEASLES.

Measles was prevalent in the District generally, but was of a mild type, and no death occurred during the year.

SCARLET FEVER.

Ninety-two cases of Scarlet Fever were notified during the year, and were distributed through the East, North, and South Wards; only 7 cases occurred in the West Ward as seen by Table IX. The disease was of a mild type, and one death only occurred from that disease.

DIPHTHERIA.

The total number of cases notified during the year was 158, being an increase of 74 over 1898. Thirty cases ended fatally. 115 houses and one gipsy's van were infected in the District, and these houses were distributed over a large portion of the District. Amongst the houses in which Diphtheria occurred, twenty were found to have defective Sanitary arrangement. These were immediately remedied under the supervision of the Sanitary Officers. The outbreak commenced in the first quarter and continued until the third quarter, and gradually abated in the fourth quarter, as seen in Table VIII. The disease was prevalent throughout the County. I am unable to account for the origin of the disease, unless the damp open insanitary weather during the winter was to blame for the outbreak. I may point out that the disease like Scarlet Fever is a disease of childhood, which generally occurs between the ages of 1 to 10 years. In no instance could the outbreak be traced to the milk supply of the District. The usual sanitary precautions were strictly carried out.

One person was prosecuted during the year for exposing her child in the public streets whilst suffering from Diphtheria.

TYPHOID FEVER.

Nineteen cases of Typhoid Fever were notified during the year, of which only one proved fatal. The cases were distributed in each quarter of the year as follows:—

	No. of Deaths.	No. of cases reported.	Death-rate per 1,000 persons living.
First Quarter	Nil	2	0·00
Second Quarter	1	3	0·14
Third Quarter	Nil	9	0·00
Fourth Quarter	Nil	5	0·00
Year	1	19	0·03

The above table shows that the disease prevailed more in the third and 4th quarters of the year, and was distributed at different age periods as follows :—

	No. of cases.	No. of deaths.
Under 5 years	1	nil
5 and under 15 years	3	1
15 and under 25 years	8	nil
25 and under 35 years	6	nil
35 and under 45 years	1	nil
45 and under 55 years	nil	nil
55 and under 65 years	nil	nil
65 and upwards	nil	nil

The sanitary surroundings connected with all the cases reported were made the subject of a special enquiry, and in a few instances the sanitary condition was found to be defective. Five of the above cases were imported into the district by sailors and other workmen, whose occupations were out of the district. The essential cause of Typhoid Fever is supposed to be a specific virus, yielded by the bowels of patients suffering from the disease, the infectious particles being conveyed to the sewers, gain access to the system through the medium of specifically polluted air, water, milk, and perhaps other food. In our present state of knowledge it is impossible to tell to what extent the ordinary

domestic refuse of a household may contain the specific contagium, but in any case it is essential that all this decomposing organic material should be ultimately disposed of in such a way as not to cause a nuisance.

WHOOPING COUGH.

There were fifteen deaths from this disease notified in the district. And the spread of Whooping Cough like that of Measles, is largely due to the general disregard on the part of the parents of any proper precaution in the way of isolation, who seem to think that their children must of necessity contract these diseases.

DIARRHŒA.

The outbreak of this disease in the third quarter was of a severe character, no less than 56 deaths occurred, 43 being under one year of age. The disease was prevalent throughout the country generally. As I have pointed out in former reports the intestinal disturbance giving rise to Diarrhœa is due to a large measure to improper feeding. Bottle-fed infants as a rule live on milk which has been so altered by the great heat, and the want of particular attention to the place the milk is kept in, and the want of extreme cleanliness of the vessels containing it; indeed in most cottages I question whether any care can prevent the dangerous changes taking place in the milk. On the Continent where this question has received much attention, sterilized humanised milk is supplied at a low cost to people of limited means, with the result that infantile deaths from Diarrhœa have been reduced as much as 50 per cent. If the Committee agree with me that it is the duty of the District to endeavour to alter this serious state of things, I should like to report fully on the matter; and although through the kindness of Mr. Lascelles Carr, who takes a great interest in this subject, and the St. Helen's Health Department, who have supplied me with much valuable information, without enquiring on the spot and getting some practical knowledge by observing the methods adopted, I don't feel quite justified in advising on the matter. Since the above was written, the Council have given me permission to visit and make enquiries as to the methods adopted and the results obtained in districts where sterilized humanised milk is supplied.

INFECTIOUS DISEASE HOSPITAL.

This Hospital which is quite complete except furnishing, will no doubt aid very materially in reducing the number of contagious or infectious diseases in the district, but unfortunately in consequence of the nearness of the Temporary Small Pox Hospital the opening has to be reluctantly delayed.

SMALL POX HOSPITAL.

The Tender for the erection of a permanent Small Pox Hospital has been given to a local Contractor and will be commenced immediately on a site situated on the extreme end of Waycock Road.

PUBLIC MORTUARY.

The Council are having constructed a new Public Mortuary at the rear of the Fire Engine Station which is now almost completed. It is situated in a very convenient position near the Central Police Station, and the Mortuary will, I believe, be one of the best in Glamorganshire.

Sanitary Condition of the District and Summary of Work performed by the Inspector of Nuisances and his Assistant.

The systematic house to house inspection of the district was commenced in January, 1899, and continued throughout the year. The following tables show the results of this inspection, from which it will be seen that a large number of sanitary defects have been remedied.

The erection of new houses, together with the construction of their drainage, is entirely under the control of the Surveyor and of the Officers of his Department.

In addition to the above, the Inspector and his Assistant has to carry out the Infectious Diseases Act, Common Lodging Houses Dairies, Cowsheds, and Milkshops Acts, Food Supply, Offensive Trades Testing Drains, and the Disinfection of Houses, Clothing, &c.

HOUSE INSPECTION, BARRY, 1899.

<i>Name of Street.</i>	<i>No. of Houses.</i>	<i>Defective Drains.</i>	<i>Choked Drains.</i>	<i>W.C. Pans and Syphons defective.</i>	<i>Broken Paving in Yard and Scullery.</i>	<i>Defective Slopstones.</i>	<i>Animals kept in Yard.</i>	<i>Accumulation of Rubbish in Yard.</i>	<i>Other Nuisances.</i>	<i>Closets not supplied with water.</i>
Abingdon Street ...	15	.....	.....	.....	1	.....	1	.....	3	2
Beatrice Road ...	25	.....	2	.....	.....	.....	1	4	.....	2
Bell Street ...	54	.....	3	.....	7	2	1	3	4	3
Beverley Street ...	19	.....	2	.....	1	.....	.....	.....	3	4
Charlotte Place ...	30	.....	.....	.....	.....	1	.....	6	2	.....
Daniel Street ...	30	1	4	2	6	2	3	2	6	6
Dunraven Street ...	19	1	2	4	3	1	.....	.....	2	.....
Evan Street ...	46	3	6	4	7	2	1	6	4	16
Fairford Street ...	30	2	4	1	2	2	.....	1	3	4
Flora Street ...	12	.....	.....	.....	1	.....	1	.....	1	.....
Foster Street ...	28	.....	1	2	1	.....	3	2	7	7
Gaen Street ...	41	.....	.....	.....	.....	2	.....	2	5	.....
Gwenllian Street ...	17	.....	2	.....	3	.....	1	1	2	.....
Gueret Street ...	66	.....	1	.....	4	1	.....	1	3	37
Harvey Street ...	47	.....	1	.....	4	.....	.....	1	3	6
Holmes Street ...	36	.....	1	.....	3	.....	1	2	2	13
Kathleen Street ...	52	1	1	.....	.....	.....	1	2	8	.....
Lec Road ...	32	.....	2	.....	3	2	1	1	7	.....
Llewellyn Street ...	30	1	4	.....	5	.....	2	3	4	16
Lombard Street...	56	.....	2	.....	1	1	2	4	7	44
Merthyr Street ...	105	.....	9	3	5	2	3	3	9	37
Morlais Street ...	21	.....	1	.....	3	2	1	4	3	.....
Phyllis Street ...	118	.....	2	.....	.....	3	2	4	12	.....
Spring Street ...	15	.....	2	.....	.....	1	2	2	3	.....
Spencer Street ...	9	1	2	2	2	.....	1	2	3	3
Trinity Street ...	54	.....	.....	.....	.....	.....	6	1	1	.....
Vale Street ...	69	.....	2	1	2	.....	2	1	3	4

WATER SUPPLY.

From information obtained from Mr. E. W. Waite, A.M.I.C.E., Water Engineer, I find that the number of persons at present supplied within the water limits is estimated to be 29,500, and that the amount of water supplied per day has been at a rate of 607,000 gallons, giving an average daily supply of 19 gallons per head of the population. The quality of this water is shown by the subjoined analysis to be very good for drinking purposes.

Result of Analysis expressed in parts per 100,000 :

Date Received.	Description.	Total Solid Matter.	Albuminoid Ammonia.	Free Ammonia	Nitrogen as Nitrates and Nitrites.	Previous Sewage or Animal Contamination.	Chlorine as Chlorides.	Sulphuric Acid as Sulphates.	Magnesia Salts.	Hardness.			Appearance in Two-foot Tube.
										Temporary	Permanent	Total.	
3rd Jan. 1900.	Sample from Barry Urban District Council ; Biglis Well.	45·8	0·009	0·002	0·08	nil.	2·65	Ex-cessive	Ex-cessive	26·2	16·5	42·7	Faint yellow colour but clear.

REMARKS : Oxygen absorbed in three hours—0·08 parts.

REPORT : This water yields no evidence of animal or sewage contamination and is free from excess of vegetable matter. Organically considered the condition of the water is good ; but it is very hard.

(Signed) THOMAS HUGHES.

9th January, 1900.

SALE OF FOOD AND DRUGS ACT.

This Act is carried out by the County Police under the orders of the Glamorgan County Council.

FOOD SUPPLY AND SLAUGHTER-HOUSE.

The Public Abattoir has been regularly inspected; no private Slaughter-houses in the district, and no cases of illegally slaughtering on unlicensed premises came to the knowledge of the Sanitary Authority.

Mr. Rees Howell, the manager of the Abattoir, reports to me that during the year the following animals were slaughtered:—

			1899.		1898.
Beasts	...	...	1,015	...	1,026
Sheep	...	...	4,599	...	3,972
Calves	...	...	143	...	167
Pigs	...	...	1,838	...	1,110
			<u> </u>		<u> </u>
Total	...		<u>7,595</u>	...	<u>6,275</u>

It will be seen by the above figures that there has been a great increase in the number of animals killed at the public Slaughter-house in 1899 to that of 1898.

The following is the quantity and description of food seized and dealt with under the 116th Section of the Public Health Act:—

Mutton 35-lbs.

SCAVENGING.

The Scavenging still leaves room for improvement, but with the erection of the Refuse Destructor, which will be completed in a short time, the system now in vogue will be revised in some details.

DAIRIES, COWSHEDS, AND WORKSHOPS ORDER, 1885.

The number of registered milksellers in the district is 69. Nine new applications for registration were made during the year, and in each case the premises were inspected and the occupiers required to comply with the provisions of the above Act, and with the regulations made under that Order.

An active supervision and a rigid enforcement of the legal powers conferred on the Local Authority by the above provisions has resulted in a considerable change for the better in the condition of these places.

BAKEHOUSES.

The bakehouses in the district, 32 in number, have been carefully inspected during the year under the powers given by the Factory and Workshops Acts. The majority were found to be in a good sanitary condition; six were found defective. In all cases the cleansing and whitewashing has been regularly performed in accordance with the provisions of the Acts.

COMMON LODGING HOUSES.

The number of common lodging houses in the district is six. These are regulated by the provisions of the Public Health Act, 1875. Section 77 requires all common lodging houses to be registered; and Section 80 empowers the Sanitary Authority to make bye-laws.

In the year 1889 your Authority adopted such bye-laws:—

(1) For fixing and from time to time varying the number of lodgers who may be received into a common lodging house, and for the separation of sexes therein.

(2) For promoting cleanliness and ventilation in such houses,

(3) For the giving of notices and the taking precautions in the case of any infectious diseases ; and

(4) Generally for the well ordering of such houses.

Further provisions were obtained in 1896 by the passing of the Barry Urban District Council Act.

(1) Regulations as to Common Lodging House Keepers.

(2) Power to refuse Registration of Common Lodging House Keepers.

(3) Cancellation of Registration of Common Lodging House Keepers ; and

(4) Notice to Common Lodging House Keepers

During the year the Common Lodging Houses were frequently inspected by day and night, and all the above provisions were strictly carried out.

SEAMEN'S LODGING HOUSES.

The Bye-laws relating to Seamen's Lodging Houses came into operation on the 1st of April, 1894.

Whereas, by the 48th Section of the Merchant Shipping (Fishing Boats) Act, 1883, it is enacted that "The Sanitary Authority within whose district any seaport town is situate may, with the sanction of the President of the Board of Trade, from time to time make, revoke, alter, and amend bye-laws and regulations relating to Seamen's Lodging Houses in such towns, which shall be binding upon all persons and bodies keeping houses in which seamen are lodged, and the owners thereof and the persons employed therein. Such bye-laws and regulations shall, amongst other things, provide for the licensing of

Seamen's Lodging Houses, the inspection of the same, the publication of the fact of a house being licensed, the due execution of the bye-laws and regulations, and the non-obstruction of persons engaged in securing such execution, the preventing of persons not duly licensed holding themselves out as keeping or purporting to keep licensed houses, and the exclusion from licensed houses of persons of improper character, and sufficient penalties for the breach of such bye-laws and regulations not exceeding in any case the sum of £50. All offences under such bye-laws and regulations shall be deemed to be offences within the Merchant Shipping Acts, 1854 to 1883, and will be punished accordingly.

Since the adoption of the above bye-laws 292 applications were made to the Council for licenses to keep Seamen's Lodging Houses, of which 186 were licensed; of these 65 left the District, and 10 were revoked for breach of bye-laws, leaving at the end of the year 111 licensed houses. During the year the licensed houses were frequently inspected and found clean.

In 1899, 7,056 seamen were shipped from Barry, of which 6,434 came from licensed houses leaving 622 to be accounted for; or coming from unlicensed houses. From enquiries made, 294 were found to be relatives, 71 over 4 weeks ashore, 129 from unlicensed houses, and 128 false addresses.

FLUSHING OF CLOSETS.

Number of houses provided with a flushing apparatus and water supply	...	...	...	...	...	5,399
Number of houses unprovided with a flushing apparatus and water supply	...	...	...	...	...	600
Number of houses provided with slop closets (Duckett's patent)						27
Number of houses provided with soilpans	...			...	...	15
Number of houses provided with privy middens	...			...	...	29
Number of houses provided with cesspools	...			...	...	7
Total number of houses in the district	...			...	...	<u>6,077</u>

I beg to call your attention to the number of soilpans and cess-pools at present in the district, and would suggest that as many as could possibly be connected to the main sewer should be done. With regard to middens, the majority are attached to farms and cottages beyond the reach of our sewer.

From the above table it will be seen that out of a total of 6,077 houses, 600 closets are unprovided with any flushing apparatus or water supply. It is acknowledged by all those who are competent to form an opinion on the subject that closet pans and house drains cannot be kept in an efficient state of cleanliness by merely throwing slops and waste water down them at irregular intervals; a nuisance is sure to rise sooner or later, and it must be borne in mind also, that this deficiency of water, besides leading to local stoppages and defects in the drains, may aggravate, or indeed be responsible for the nuisance arising from the sewer ventilators in the streets. A system of this kind, which of necessity causes undue retention on the premises of offensive matter, is likely to be particularly dangerous in the case of certain diseases in which the infection belongs to discharges. In such cases it is of the first importance that infectious matter deposited in closet pans should be flushed away without delay. This cannot be safely and efficiently effected in the absence of a proper flushing apparatus.

MAGISTERIAL PROCEEDINGS.

					No. of Cases.	Fines. £ s. d.		
For keeping seamen without a license	..	..	2	...	1	10	0	
For non-compliance of notice (re nuisance)	...	2	...	pay costs				
For exposing child suffering from an infectious disease...	...	...	...	...	1	...	1	0 0

In conclusion I have the pleasure in reporting that your Chief Sanitary Inspector and Assistant Inspector have carried out their work in a satisfactory manner, and that they have as usual paid the greatest attention to their varied and important duties.

I have the honour to be, Gentlemen,

Your obedient servant,

GEORGE NEALE, L.R.C.P.,

Medical Officer of Health.

APPENDIX.

REPORT OF

Mr. S. B. Sommerfield, Chief Inspector of Nuisances,
FOR THE YEAR 1899.

INSPECTION OF FACTORIES & WORKSHOPS

(Under the Factory and Workshops Acts, 1878-1895, and the
Shop Hours Act, 1892.)

During the year a large number of workshops have been inspected.
The results of these inspections are given in the annexed Tables :—

Nature of Workshops.	No. on Register.	No. of Inspections.
Saddlers ...	2	8
Bakers ...	32	124
Bootmakers ...	8	30
Sugar Boiler ...	1	6
Printers ...	—	18
Laundries ...	6	46
Carpenter and Joiner ...	—	4
Upholsterers ...	—	6
Dressmakers ...	28	120
Milliners ...	6	28
Tailors ...	8	54
Watchmakers ...	—	4
Plumbers ...	—	6
Carpenter and Tinsmith ...	—	4
Firewood Cutter ...	—	3
Blacksmiths ...	—	10
Iron and Brass Founders ...	—	2
Engineers and Boilermakers ...	—	3
Engineers and Blacksmiths ...	—	4
Carpenter and Tinsmith ...	—	4
Ship Repairers ...	—	7
Engineers ...	—	1
Copper Smiths ...	—	4

Notices of new workshops from Inspector of Factories under Factory Act, 1891, Sec. 26, Sub. 2, Factory Act, 1895, Sec. 41=2.

Notices from Inspector of Factories *re* Sanitary Defects in workshops, Sec. 4, Factory and Workshop Act, 1878=Nil.

Notices sent by Sanitary Authority to Inspector of Factories under Sec. 3, Factory and Workshop Act, 1891=4.

WORKSHOPS.

<i>Nuisances Abated.</i>	<i>Plumbers.</i>	<i>Carpenters.</i>	<i>Tinsmiths.</i>	<i>Sugar Boilers.</i>	<i>Printers.</i>	<i>Saddlers.</i>	<i>Firewood Cutter.</i>	<i>Blacksmiths.</i>	<i>Dressmakers.</i>	<i>Bottling Stores.</i>	<i>Bakers.</i>	<i>Bootmakers.</i>	<i>Tailors.</i>	<i>Laundries.</i>
Water Closets cleansed and repaired	4	...	2	...	1	3
Water Closets supplied with water	1	...	..	...	...	...	...	...	...	...
Drains trapped and repaired	1	...	...	2	...	4	...	...	...
Ventilation provided	1	1
Limewashed	1	...	..	...	...	4	1	20	2	4	3
Repaired	1
Overcrowded
W.C. accommodation provided
Roofs and Shutes repaired	1	...	...	...	...	...	...
Accumulations removed	2	1	2	...	1	...	2	...	...	3

SHOP HOURS ACT, 1892.

<i>Nature of Shops inspected.</i>	<i>Number of Inspections.</i>	<i>Young Persons are employed. Number of Shops in which</i>	<i>Infringement of Act.</i>	<i>Proceedings taken. Result.</i>
Drapers	89	18	...	...
Grocers	128	23	...	...
Ironmongers	22	6	...	...
Greengrocers	28	7	...	...
Hairdressers	30	8	...	...
Fancy Shops	10	5	...	...
Boot Shops	47	10	...	...
Pawnshops	6	2	...	...
Chemists	11	3	...	...
Restaurants	9	2	...	...
Hotels	6	3	...	...
Fishmongers	70	4	...	...
Confectioners	6	3	...	...
Butchers	167	28	...	...
Outfitters	26	5	...	...
Stationers	6	3	...	...
Hatters and Hosier	4	1	...	...
Tobacconist	2	1	...	...
Total	667	132	...	...

NUISANCES.

Nuisances inspected	...	...	...	...	1,244
Notices issued	...	...	...	...	701
Notices abated without legal proceedings			...	...	699
„ „ with „ „			...	...	2
Number of extra visits made to same			...	...	2,130
Animals kept so as to be a nuisance			...	...	40
Injurious and foul accumulations	...	...	...	...	113

NUISANCES.—(*Continued.*)

Cesspools cleansed	...	..	...	...	6
Drains unstopped and cleansed	...	...	...	...	225
„ trapped and repaired	...	...	...	...	103
„ tested ...	...	...	..	...	75
„ tested and defects repaired	...	...	...	...	46
Foul and offensive closets	...	...	...	...	32
Defective apparatus to water-closet repaired	...	...	...	...	46
Water laid on to water-closets	...	...	..	...	10
„ „ „ „ dwelling-houses	...	...	...	...	12
Dirty houses cleansed and whitewashed	...	...	...	...	20
Paving and flagging repaired	...	...	...	...	74
Overcrowding notices	...	...	...	...	4
Structural defects	...	...	...	...	63

GIPSY VANS.

Number inspected	...	...	...	...	20
„ found dirty	...	...	...	...	2
„ „ clean	...	...	...	...	18

DISINFECTION.

Houses disinfected	...	...	...	...	228
Articles of bedding and clothing disinfected	...	...	...	...	1,750
„ „ „ „ „ destroyed	...	...	...	...	380
Library books disinfected	...	...	...	...	60
Religious Tracts „	...	...	...	...	2,500

SLAUGHTER-HOUSE.

Visits paid to Slaughter-house	...	...	...	...	52
„ „ butchers and provision shops	...	...	...	...	185

COWSHEDS AND MILKSHOPS.

Number of cowkeepers on register ...	...	...	32
„ milksellers „ ...	...	...	28
„ „ registered during the year	...	...	9
Total ...	...	...	69
Number of visits paid to cowsheds ...	...	...	63
„ „ „ milkshops	...	...	63
Total ...	...	...	126
Number of notices served	...	...	9
„ defective drains	...	...	2
„ receptacles for manure erected	...	...	Nil
„ accumulations of manure	...	...	3
„ cowsheds require whitewashing	...	...	4
Total ..	...	...	9

COMMON LODGING HOUSES.

Total number on register	...	...	...	6
Registered rooms	...	...	...	36
Number of persons certified to accommodate	...	...	...	129
Day inspection	...	...	...	60
Night „	...	...	...	54
W.C.'s cleansed and repaired	...	...	...	6
„ supplied with water	...	...	...	Nil
Drains choked and repaired	...	...	...	4
Limewashed (twice a year)	...	...	...	12
Foul accumulations	...	...	...	12
Overcrowded	...	...	...	Nil
Paving in yard broken	...	...	...	4
Infectious disease discovered	...	...	...	2

S. B. SOMMERFIELD,

Sanitary Inspector.

SEAMEN'S LODGING HOUSES.

Total number on register	...	...	...	111
Registered rooms	...	...	...	236
Number of persons certified to accommodate	...	...	...	563
Day inspection	...	...	...	192
Night „	...	...	...	68
W.C.'s cleansed and repaired	...	...	...	19
„ supplied with water	...	...	...	6
Drains choked and repaired	...	...	...	20
Limewashed	...	...	...	20
Foul accumulations	...	...	...	12
Overcrowded	...	...	...	Nil
Paving in yard broken	...	...	...	12
Infectious disease discovered	...	...	...	Nil

THE RAINFALL.

The Rainfall during the year 1899, as observed by Mr. E. W. Waite, A.M.I.C.E., at Biglis Pumping Station, in the County of Glamorgan, is shown by the subjoined table:—

Latitude $51^{\circ} 21' \cdot 25$.

Longitude $3^{\circ} 13' \cdot 33$.

Diameter of Receiver of Gauges, 5 inches.

Height above Sea-level, 20 feet.

RAINFALL IN 1899.

Taken at Biglis Pumping Station, by Mr. E. W. Waite, A.M.I.C.E.
Diameter of Receiver of Gauges, 5-ins. ; height above sea level, 20-ft.

MONTH.	Total Depth.	Greatest Depth in 24 hours.	Date.	No. of days on which 0·01 or more rain fell.
	Inches.			
January	4·25	0·62	14th	25
February	3·05	0·76	5th	12
March	0·74	0·49	26th	6
April	3·54	0·99	21st	22
May	1·78	0·62	19th	14
June	0·93	0·35	30th	6
July	2·83	2·50	23rd	7
August	1·77	0·44	29th	10
September	2·55	0·78	26th	15
October	2·83	0·59	1st	10
November	2·19	0·79	9th	10
December	2·55	0·75	28th	15
Total	29·01			152

METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1899.

Recorded by Mr. E. W. Waite, A.M.I.C.E., at his residence Canon Street, Barry.

MONTH.	BAROMETER.			THERMOMETER.							EARTH-THERMO-METER.		HYGRO-METER.		Rain-fall Ins.			
	Highest.	Lowest.	Mean of Month	Maximum	Minimum	Mean of Max. Degs.	Mean of Min. Degs.	Mean Degs.	No. of days at or below 32°	1-ft. deep Degs.	4-ft. deep Degs.	Mean of Dry Bulb Degs.	Mean of Wet Bulb Degs.					
January ...	26th	30.5	2nd	28.9	29.7	18th	55.0	28th	30.0	49.6	41.3	45.4	3	39.2	42.5	43.8	43.0	4.25
February...	28th	30.5	13th	29.0	29.7	11th	58.0	4th	29.0	49.0	40.0	44.6	2	40.0	40.0	42.0	42.0	3.05
March ...	1st	30.5	9th	29.0	29.9	17th	61.0	22nd	27.0	51.0	39.2	45.1	4	39.0	40.0	39.9	39.0	0.74
April ...	5th	30.1	14th	28.9	29.7	3rd	58.0	11th	40.0	55.8	46.2	51.0	...	42.0	31.1	48.0	47.0	3.54
May ...	29th	30.3	15th	29.4	29.9	31st	72.0	5th	42.0	63.0	48.0	56.0	...	51.0	36.0	53.0	52.9	1.78
June ...	8th	30.3	21st	29.3	30.0	6th	84.0	9th	51.0	73.2	56.0	64.6	...	55.0	40.0	62.6	62.0	0.93
July ...	28th	30.3	12th	29.7	30.0	20th	87.0	13th	52.0	72.9	59.0	66.0	...	60.0	44.0	64.6	62.4	2.83
August ...	1st	30.3	27th	29.8	30.0	1st	90.0	11th	58.0	76.9	61.5	69.2	...	61.0	45.0	67.0	66.7	1.77
September	10th	30.1	30th	29.2	29.8	5th	78.0	29th	46.0	66.7	57.8	62.3	...	61.0	46.0	60.7	60.3	2.55
October ...	22nd	30.3	13th	28.9	29.8	12th	61.0	25th	41.0	57.0	47.2	52.0	...	52.0	44.0	50.0	49.9	2.83
November	30.5	8th	29.3	30.5	30.5	2nd	60.0	17th	45.0	55.8	48.1	51.9	...	45.0	37.0	51.0	51.0	2.19
December	17th	30.3	29th	28.4	29.7	4th	55.0	15th	27.0	46.0	36.0	41.0	...	43.0	35.0	39.0	38.0	2.55

BARRY URBAN DISTRICT.

FOR THE YEAR ENDING DECEMBER, 1899.

CAUSES OF DEATH.								Death-rate per 1,000 of population 29,285.
(Classes.)								
Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and under 80.	80 and upwards.	TOTAL.	
I. Specific Febrile or Zymotic Diseases...	56	36	12	8	1		104	
III. Diabetic ...	15	8	2	22	7		62	
IV. Constitutional ...	24	2			13	3	42	
V. Developmental ...	122	31	5	2	48	2	238	
VI. Local ...	1	3		5	14		25	
VII. Violence ...	1	3		5	6	2	30	
VIII. Ill-defined and not specified causes ...	22						1'02	
Total	240	80	19	15	91	52	5502	
I. SPECIFIC FEBRILE OR ZYMOTIC DISEASES.								
Miasmatic Diseases.								
Scarlet Fever ...	1	5	1				1	
Whooping-cough ...	9						15	
Diphtheria ...	2	19	9				30	
Enteric Fever ...			1				1	
Diarrheal Diseases.								
Diarrhoea, Dysentery...	43	12	1				56	
Septic Diseases.								
Erysipelas ...	1						1	
Total	56	36	12				104	
III. DIETIC DISEASES.								
Intemperance, Chronic Alcoholism					1		1	
Total					1		1	
IV. CONSTITUTIONAL DISEASES.								
Cancer ...								
Tabes Mesenterica ...	6	3			4	5	10	
Tubercular Meningitis ... (Acute Hydrocephalus)	3	1			2		9	
Phthisis ...	2	2		4	13	2	23	
Other Forms of Tuberculosis, Scrofula	4	1	1	1	2		9	
Anæmia, Chlorosis, Leucocythæmia				1	1		2	
Diabetes Mellitus ...			1				1	
Total	15	8	2	8	22	7	62	
V. DEVELOPMENTAL DISEASES.								
Premature Birth ...	20	1					21	
Spina Rifida ...	1						1	
Other Congenital Defects ...	3	1					4	
Old Age ...						13	13	
Total	24	2				13	42	
VI. LOCAL.								
1. Diseases of the Nervous System.								
Inflammation of Brain or its Membranes								
Apoplexy ...					1	1	2	
Softening of Brain ...					2	3	5	
Hemiplegia, Brain Paralysis					2	1	3	
Paralysis, Agitans ...					1		1	
Epilepsy ...	1						1	
Convulsions ...	41	3	1				45	
Idiopathic Tetanus ...					1		1	
3. Diseases of Circulatory System.								
Endocarditis, Valvular Disease ...	1				5	2	8	
Hypertrophy of Heart					3		3	
Syncope ...					6	4	12	
Senile Gangrene ...			1			4	5	
4. Diseases of Respiratory System.								
Laryngitis ...								
Group ...	1	2					1	
Bronchitis ...	12	5			3	4	25	
Pneumonia ...	11	11	1	1	10	3	37	
5. Diseases of Digestive System.								
Stomatitis ...	1	1					2	
Dentition...								
Diseases of Stomach...	9	6					15	
Enteritis ...					2		2	
Ulceration of Intestine	37	3		1			41	
Ileus, Obstruction of Intestine	1						1	
Hernia ...	1						1	
Peritonitis ...					1	1	2	
Cirrhosis of Liver				4	1		5	
Other Diseases of Liver	3		1				4	
Other Diseases of Digestive System								
7. Diseases of Urinary System.								
Acute Nephritis ...					1		1	
Bright's Disease ...								
Uremia ...								
9. Diseases of Parturition.								
Puerperal Convulsions					2	2	3	
Other Accidents of Childbirth ...						1	1	
10. Diseases of Organs of Locomotion.								
Caries, Necrosis ...					1		1	
11. Diseases of Integumentary System.								
Eczema ...	1						1	
Total	122	31	5	2	48	28	238	
VII. VIOLENCE.								
Accident or Negligence.								
Fractures, Contusions ...								
Burn, Scald ...	1			4	6	2	13	
Drowning ...	2			1	1		3	
Suffocation ...				3	3		3	
Homicide.								
Murder, Manslaughter ...	1				1		2	
Suicide.								
Cut, Stab ...					1		1	
Poison ...				1	1		2	
Total	1	3		5	14	2	25	
VIII. ILL-DEFINED AND NOT SPECIFIED CAUSES.								
Debility, Atrophy, Inanition ...	20					1	21	
Hæmorrhage ...				3			3	
Sudden (Cause unascertained) ...				2	1		3	
Other ill-defined and not specified	2			1			3	
Total	22			6	2		30	
IX. OTHER CAUSES.								
Death-rate per 1,000 of population 29,285.								

(A.)

TABLE OF DEATHS.

TABLE OF DEATHS during the Year 1899, in the BARRY URBAN AND PORT SANITARY DISTRICT,
classified according to DISEASES, AGES, and LOCALITIES.

Name of Locality:	Mortality from all causes at subjoined ages.							Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of Age.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Fevers.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
								Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All Other Diseases.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Barry Urban and Port Sanitary District	502	240	80	19	15	91	57	1	21	2	1</

TABLE C. 1899.

Supplementary Table for Annual Reports.*Urban and Port Sanitary District of Barry.*

MEDICAL OFFICER OF HEALTH ... GEORGE NEALE, L.R.C.P.

Date of First Appointment, (Urban) 2nd October, 1888 ; (Port), 10th October, 1893.

Date of Last Appointment—21st December, 1899. Present Salary, Urban, £75 ; Port, £30.

Term of Appointment—three years.

Rateable Value of District for Gen. District Rate—£165,934 : 2 : 6.

Special Reports presented during 1899—Small Pox, Diphtheria, Diarrhoea, Sewer Ventilation, Cubic Capacity of Board Schools, and Free Library.

Water Supply—

Any extension or change in 1899? New High Level Reservoir, capacity 300,000 gallons ; Water Mains carried to Porthkerry and Sully, and extensions within the District ; also portions of St. Andrews Parish. The amount spent, £7,000.

Portions of District inadequately supplied? Nil.

Cases of Lead Poisoning in 1899? Nil.

Sewerage and Sewage Disposal— Extensions or Improvements during 1899?	}	6,049 yards of Sewerage constructed. The total number of Sewer Gas Destructors are 5. 3 Telegraph Iron Shafts used as Ventilators, also 56 six and nine inch Sewer Ventilators carried up at the rear and pine-end of houses.
--	---	--

Excrement Disposal—Are the Privy Middens, &c.,
cleansed by Sanitary Staff, by Contractors, or by
Tenants? } Contractor
under Sani-
tary Staff.

Is the present arrangement satisfactory? Yes.

Bye-Laws and Regulations—Any change
as to Bye-Laws, or as to Regulations
under Dairies, Cowsheds, and Milkshops
Order? } Yes (5). Dairies, Cow-
sheds, and Milkshops;
Bathing, &c. ; Omni-
buses, &c. ; regulating
the use of the Sea-
shore ; Tents, Vans,
Sheds, and Similar
Structures.

Regulated Buildings, Trades, etc.—

	<i>Number</i>	<i>Are they inspected, and if so, by whom ?</i>	<i>General Conditions.</i>	<i>Legal Proceed- ings (if any)</i>
Seamen's Lodging Houses	111	Yes ; Inspector Hopkins	Good	Nil.
Common Lodging Houses	6	Yes ; Inspector Sommerfield	Good	Nil.
Houses Let in Lodgings	...	.....	.....	.....
Canal Boats ...	...	.....	.....	.....
Slaughter Houses	1	Yes ; Inspector Sommerfield	Good	Nil.
Bakehouses ...	32	Yes ; Inspector Hockley	do.	do.
Dairies ...	8	Yes ; Inspector Sommerfield	do.	do.
Cowsheds ...	32	do.	do.	do.
Milkshops ...	28	do.	do.	do.
Offensive Trades	...	.....	.....	.....

Meteorological Observations } Yes. By E. W. Waite, Esq
 (if any) taken in or near } A.M.I.C.E., Canon Street,
 District ? } Barry.

Death Returns—What corrections (if any) are made for } None
 non-residents dying within the District ? }

Are any Returns obtained of deaths of residents occurring }
 in Public Institutions (Workhouses, Hospitals, &c.) } None
 outside the District ? }

Deaths—State (a) Number of each sex : 272 males and 230 females.
 (b) Number uncertified : Nil.

Births—State (a) Number of each sex : 677 males and 555 females.
 (b) Number Illegitimate : 26.

Hospital for Infectious Diseases—No. of Beds : 16.

Charges to Patients : Nil.

Construction—Brick, Stone, Wood, Iron, &c., &c. : Brick, &c.

Adoptive Acts—(1) Notification Act.

Adopted when : August 12th, 1890. Diseases added : Nil.

(2) Prevention Act.

Adopted when : January 6th, 1891 ; February 3rd, 1891.

Part 23 and 24.

(3) Public Health Acts Amendment Act.

Adopted when : November 28th, 1893 ; Part 5.

House Drainage—Closets : Approximate number of each kind in the District : W.C. 5,399. Trough C. nil. Slop C. (Waste Water C.) 27. Pail, Pan, or Tub C. 20. Privy Middens, covered 29 ; uncovered nil. Number of each of the above constructed during the year 1899? 269 newly constructed, 7 cesspools, and 600 not flushed.

Loans—(if any) sanctioned by the Local Government Board during year? £56,362.

State what action has been taken with regard to the following matters :—

- (1) Closure of Houses unfit for habitation : One.
- (2) Seizure of Unsound Food : One Carcase. Prosecutions : Nil.
- (3) River Pollution : Nil.

INSPECTOR'S REPORT.

District	Barry															
Population	31,436															
Inspector	S. B. Sommerfeld															
Dwelling-houses and Schools	Foul Conditions	113	63	4	1	125	36	27	38	20	..	..	..	..	..	..
	Structural Defects	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Overcrowding	20	52	4	1	22	9	4	6	..	..	..	..	..	..	..
	Unfit for Habitation	20	52	4	1	22	9	4	6	..	..	..	..	..	..	..
		Lodging Houses	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Dairies and Milkshops	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Cowsheds	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Bakehouses	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Stable-houses	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Aspites and Privies	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Canal Boats	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Deposits of Refuse and Manures	113	..	..	..	..	..	..	..	..	..	..	..	..	..
		Water Closets	123	123	103	..	..	..	..	..	..	..	..	..	..	..
		Detective Traps	103	..	..	..	..	..	..	..	..	..	..	..	..	..
		No disconnection	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Other Faults	170	12	62	40	..	..	..	..	..	..	..	..	..	..
		Water Supply	12	62	40	..	..	..	..	..	..	..	..	..	..	..
		Pigstyes	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Animals improperly kept	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Offensive Trades	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Smoke Nuisances	2	95	124	4	..	..	..	..	..	..	..	..	..	..
		Other Nuisances	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Totals	1	124	4	..	..	..	..	..	..	..	..	..	..	..
		Seizures of unwholesome food	1	..	..	..	..	..	..	..	..	..	..	..	..	..
		Samples of food taken for analysis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Samples of food found adulterated	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Samples of Water taken for analysis	1	..	..	..	..	..	..	..	..	..	..	..	..	..
		Samples of Water condemned as unfit for use	1	..	..	..	..	..	..	..	..	..	..	..	..	..
		Food Supply and Water	140	228	..	..	..	..	..	..	..	..	..	..	..	..
		Lots of infected bedding stored or destroyed	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Houses disinfected after infectious disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Schools disinfected after infectious disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Prosecutions for not notifying existence of infectious disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Convictions for not notifying existence of infectious disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Prosecutions for exposure of infected persons or things	1	..	..	..	..	..	..	..	..	..	..	..	..	..
		Convictions for exposure of infected persons or things	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		House Drains tested	175	60	..	..	..	..	..	..	..	..	..	..	..	..
		Library Books disinfected	..	..	..	..	..	..	..	..	..	..	..	..	..	..

W. WILLIAMS, County Medical Officer.

Barry
Port Sanitary Authority.

ANNUAL REPORT

FOR THE YEAR 1899.

BY

GEORGE NEALE, L.R.C.P.,

Medical Officer of Health.

BARRY DISTRICT COUNCIL.

Port Sanitary Committee.

Chairman :

COUNCILLOR J. H. JOSE, J.P.

Vice-Chairman :

COUNCILLOR EDWARD TREHARNE, J.P.

Members :

COUN. EVAN JONES.

„ D. MORGAN.

„ J. THOMAS.

„ J. A. MANATON.

„ E. B. SMITH-JONES.

COUN. J. L. DAVIES.

„ S. BARNETT.

„ A. T. WHITE.

„ J. C. MEGGITT, J.P.

„ W. PATERSON.

Medical Officer of Health :

GEORGE NEALE, L.R.C.P.

Chief Port Sanitary Inspector :

W. J. HOPKINS, Cert. Insp. San. Inst.

Assistant Inspector :

J. DAVIES, Cert. Insp. San. Inst.

Temporary Assistant :

T. FINLEY.

Barry Port Sanitary Authority.



Council Offices,

Barry Dock.

To the Chairman and Members of the Barry Port Sanitary Authority.

GENTLEMEN,

I have the honour to submit to you my Annual Report for the year 1899.

The Port Sanitary District of Barry was constituted in the year 1893.

The Boundaries of the District are defined as follows:—

A straight line drawn due South from the seaward extremity of the common boundary of the Parishes of Sully and Lavernock, and to the boundary of said port, a straight line drawn due South from the seaward extremity of the common boundary of the Parishes of St. Athan's and Llantwit Major, to the boundary of the said port, and a line coincident with that part of the boundary of the said port which lies between the points at which the straight lines hereinbefore mentioned meet such boundary; together with the waters of the said port of Cardiff within such limits, and the place or places for the time being appointed as the Customs Boarding Station or

Stations for such part of the said port, and every other place for time being appointed for the mooring or anchoring of ships for such part of the said port, under any regulations for the prevention of the spread of diseases issued under the authority of the Statutes in that behalf, and the docks, basins, harbours, creeks, rivers, channels, roads, bays, and streams belonging to such part of the said port.

The regulations of the Local Government Board prescribe, with regard to the Medical Officer of Health :—

“That he shall prepare an annual report, to be made to the
 “end of December in each year, comprising tabular state-
 “ments (so far as he shall have been able to obtain the
 “necessary information) of the sickness and mortality of
 “persons on ship-board within the District, classified accord-
 “ing to diseases, ages, and vessels, and a summary of the
 “action taken during the year for preventing the spread of
 “disease. The report shall also contain an account of the
 “proceedings in which he has taken part or advised under
 “the Public Health Act, 1875, so far as such proceedings
 “relate to conditions dangerous or injurious to health, and
 “also an account of the supervision exercised by him, or on
 “his advise, for sanitary purposes over places and vessels
 “that the Port Sanitary Authority has power to regulate,
 “with the nature and results of any proceedings which may
 “have been so required and taken in respect of the same
 “during the year.”

This report is therefore made in accordance with the above regulations.

The floating population of the District is roughly estimated at 1,040 persons.

The following Table shows the number of vessels and tonnage entering the Docks since 1889 :—

TABLE I.

<i>Year.</i>	<i>No. of Vessels entered.</i>		<i>Total Tonnage</i>	<i>Total Exports and Imports.</i>		
1889	...	598	...	567,598	...	No Return kept
1890	...	1,753	...	1,694,237	...	Do.
1891	...	2,096	...	2,007,479	...	4,005,574
1892	...	2,180	...	2,233,365	...	4,272,832
1893	...	2,160	...	2,197,257	...	4,362,557
1894	...	2,142	...	2,477,334	...	5,067,014
1895	...	2,278	...	2,516,122	...	5,266,548
1896	...	2,646	...	2,696,743	...	5,489,892
1897	...	2,806	...	3,167,311	...	6,107,604
1898	...	2,265	...	2,425,483	...	4,528,160
1899	...	2,864	...	3,328,485	...	7,475,752

HOSPITAL ACCOMMODATION OF THE BARRY PORT SANITARY AUTHORITY.

The Port Sanitary Authority has the use of the Small Pox Hospital belonging to the Barry Urban Sanitary Authority for the reception of cases of Small Pox occurring on board vessels in the Port. Cases of Cholera, Yellow Fever, and Plague are dealt with in another way under the Regulations of the General Order of the Local Government Board, dated 9th November 1896, as follows :—

Part I. of the Regulations contains the definition of terms.

Part II. gives power to the Customs Officer to detain vessels suspected to be infected with Cholera, Yellow Fever, or Plague, and requires him to give notice of such detention to the Sanitary Authority.

Part III. requires the Sanitary Authority to fix upon some place where vessels so detained shall be moored, and provides that the Medical Officer of Health shall at once visit the vessel at the mooring station, for the purpose of ascertaining if it is infected. Power is also given to the Medical Officer of Health to visit and examine any ship

suspected to be infected, whether detained by the Customs or not, that is, in the case of Cardiff, before the vessel has entered the docks, and in such case if it is found to be infected the vessel is to be taken to the mooring station already fixed upon. The Medical Officer of Health is required to examine every person on board the infected vessel, and every person certified by him to be suffering from Cholera, Yellow Fever, or Plague shall be removed to the Hospital of the Sanitary Authority. No other person is allowed to leave the vessel unless he satisfies the Medical Officer of Health as to his name, intended place of destination, and intended address at such place, in order that this information may be forwarded to the Sanitary Authority of the district in which such intended place of destination is situate. The regulations provides that the infected vessel shall remain under the supervision of the Medical Officer of Health until every necessary step has been taken to prevent the spread of infection, and details are given as to the destruction of disinfection of infected articles on board.

The Regulations also provide that where a ship has passengers on board who are in a filthy or unwholesome condition, or have come from an infected port, no persons on board such ship shall be allowed to land without giving to the Medical Officer of Health their name and places of destination.

Power is also given to the Sanitary Authority in the case of any such ship to require all water, casks and tanks to be emptied and cleansed, and all bilge water to be pumped out in some suitable place before the vessel enters any dock or basin.

By an agreement between the Cardiff and Barry Port Sanitary Authorities, persons suffering from Cholera, Yellow Fever, or Plague within the district of our Authority are received into the Hospital of the Cardiff Authority on the Flat Holmes Island.

The agreement provides that an annual payment shall be made by the Barry Authority in proportion to the tonnage of vessels entering the several docks, in addition to a weekly payment on account of each patient received into the Hospital. The Cardiff Authority undertaking the entire management and control of the Hospital.

On the 24th of August, 1899, Dr. Rees, Local Government Inspector, paid a visit to examine the Port, in case Bubonic Plague should be imported. He expressed himself as well satisfied with our arrangements for removing any case that might arrive to the joint Hospital on the Flat Holmes.

Last year your Council appointed an assistant Inspector, also a temporary assistant, therefore we are in a more satisfactory position for coping with infectious diseases in the Docks for the reason that every vessel arriving day or night is immediately inspected.

TABLE II,

The following Table gives the number of Vessels boarded during the year ending December 31st, 1899, by the Medical Officer of Health and Inspector on account of disease on board during the voyage or at the time of arrival in Port.

<i>Date and Time.</i>	<i>Name of Vessel and where from.</i>	<i>Nature of Sickness.</i>	<i>REMARKS.</i>
Feb. 20th, 10.30 a.m.	... S.S. Roddam, from New Orleans via Manchester	Pleurisy	The mate reported that E. Everson, A.B., age 21, was taken to hospital at Manchester, suffering from Pleurisy. No other case occurred on board.
Feb. 23rd, 6.30 p.m.	... Johanna, from Rotterdam...	Influenza	The Master reported that P. Pig, A.B., age 55, was suffering from Influenza, and died on the 28th instant.
Feb. 27th, 11.20 a.m.	... S.S. Apollo, from Genoa ..	Congestion of the Lungs ...	The Master reported that one of the Lascars named Benderalla, A.B., age 25, was suffering from Congestion of Lungs. Medically attended on board.
March 6th, 12.15 p.m.	... Bessie, from Antwerp via Portsmouth	Small Pox	The Master reported that the ship left Antwerp on the 25th of February, arrived in Portsmouth on the 28th, left Portsmouth on 3rd of March, when D. Hostler, Cook, age 39 years, was taken ill, arrived at Barry on March 6th, when he was medically attended and certified to be suffering from Small Pox and was at once removed to the Small Pox Hospital. The vessel was thoroughly fumigated and all the crew's effects taken ashore and disinfected, and four members of the crew were re-vaccinated. No other case of sickness occurred during the vessel's stay at this Port.

TABLE II.—*continued.*

<i>Date and Time.</i>	<i>Name of Vessel and where from.</i>	<i>Nature of Sickness.</i>	<i>REMARKS.</i>
March 7th, 7-35 p.m.	... S.S. St. Bernard, from Odessa via Antwerp	Secondary Typhillis	... The Master reported that C. Jacobson, A.B., age 35, was ill on board, and was conveyed to Hamadryad Hospital, Cardiff.
March 16th, 10 a.m.	... S.S. Klondyke from Paullice	Consumption	... The Master reported that A. Johanson, Cook, age 20, was suffering from Consumption. Medically attended on board.
March 18th, 11 a.m.	... S.S. Sydenham, from Rotterdam	Diarrhoea	... On boarding this vessel I found that the Master had been ill on board since leaving Rotterdam, and on arrival at Barry on March 18th. He was found to be suffering from Diarrhoea. Medically attended on board. No other case occurred during her stay at this Port. The fresh water tanks were thoroughly cleansed.
April 3rd, 12.30	... S.S. Crange Branch, from Rurrachee via Antwerp	Pneumonia	... The Master reported that two of the crew—Lascars—were taken ill on the 26th of March, and upon examination found to be suffering from Pneumonia. Medically attended on board.
May 5th, 11.20 a.m.	... Barque Glendovey, Hamburg	Influenza	... On boarding this vessel the Chief Officer reported that A. Hensen, A.B., age 22 years, was taken ill on the 3rd of May, and on arrival here on May 5th he was medically attended and found to be suffering from Influenza.
May 20th, 10.30 a.m.	... S.S. Eastry, Ariab via Hamburg	Bronchitis	... On boarding this vessel A. Norman, T.M., age 42 years, was found to be suffering from Bronchitis. Medically attended on board.

TABLE II.—*continued.*

<i>Date and Time.</i>	<i>Name of Vessel and where from.</i>	<i>Nature of Sickness.</i>	<i>REMARKS.</i>
May 27th, 11.45 a.m. ...	S.S. Ethel Radcliffe, Odessa via Hamburg	Influenza ...	The Master reported that H. Betersen, A.B., age 27 years, was suffering from Influenza.
May 23rd, 5 a.m. ...	S.S. Queen Mary, from Bremerhaven	Small Pox ...	The Master reported that the ship left Aden on Jan. 7th, arrived at Calcutta Feb. 18th, left Calcutta March 13th, arrived in Rangoon March 17th, left Rangoon March 31st. On April 12th Thomas Barclay, 4th Engineer, age 24 years, was taken ill, and on the following day John Duncan, 3rd Engineer, was taken ill; both were suffering from an Eruptive Fever. On April 23rd the ship arrived at Port Said and the men were there medically attended and reported to be suffering from Chicken Pox. Left Port Said the same day and arrived in Bremerhaven on the 11th of May, left Bremerhaven on 19th May, and arrived at Barry on the 23rd. On the 31st of May George Kemp, Chief Officer, was taken ill, and certified to be suffering from Small Pox, and was immediately removed to the Small Pox Hospital. His effects and the ship were disinfected. All members of the crew were vaccinated, and names and addresses of those leaving the ship were taken and forwarded to the places of destination.
June 5th, 10.30 a.m. ...	S.S. Wenvoe, from Santos, Buenos Ayres, London, and Antwerp	Yellow Fever ...	The Master reported that 10 of the crew were left in Hospital at Buenos Ayres, suffering from Yellow Fever. The vessel was thoroughly fumigated and all infected articles destroyed. No other cases of sickness occurred during the voyage.

TABLE II.—(continued).

Date and Time.	Name of Vessel and where from.	Nature of Sickness.	REMARKS.
June 6th, 7.45 a.m.	S.S. Trevalyan, from Rotterdam	Fever and Ague ...	The Mate reported that William Fogity, A.B., was taken to Hospital at Rotterdam suffering from Fever and Ague. All the rest of the crew well.
June 8th, 11.45 a.m.	S.S. Morden, from Genoa	Pneumonia ...	On boarding this vessel on arrival, A. Hobbel, T.M., age 22 years, was found to be suffering from Pneumonia, and was medically attended on board.
June 9th, 1.30 p.m.	S.S. Sandhill, Colombo via Algiers, New York, and Leith	Small Pox ...	The Chief Officer reported that the Master, J. Williams, was taken to Hospital at Colombo on Feb. 28th, suffering from Small Pox. The vessel was thoroughly fumigated and all the crew's effects were taken on shore and disinfected. No other case of sickness occurred during the voyage.
June 15th, 10.30 p.m.	S.S. Pearlmoor, Genoa via Pensacola and Rotterdam	Small Pox ...	The vessel arrived Genoa Feb. 28th, sailed March 13th. On the 14th an Eruption appeared on the face of J. Warrick, Apprentice, and disappeared on 21st. On March 11th an Eruption appeared on the face of James Askell, Apprentice, and disappeared on May 22nd. On May 4th an Eruption appeared on the face of Wm. Searmont and disappeared two days after. The vessel arrived at Pensacola on April 10th and sailed on May 2nd. Arrived at Rotterdam on May 28th. On June 6th an Eruption appeared on the face of Robert Weatherill. The vessel sailed from Rotterdam on June 13th, and on arrival at Barry, June 15th, R. Weatherill was found to be suffering from Small Pox and was forthwith removed to Small Pox Hospital. The vessel was thoroughly fumigated and all the apprentices' effects taken ashore and disinfected, and several of the crew were vaccinated. No other case of sickness occurred during the vessel's stay at this Port.

TABLE II.—(continued).

<i>Date and Time.</i>	<i>Name of Vessel and where from.</i>	<i>Nature of Sickness.</i>	<i>REMARKS.</i>
September 18th ...	S.S. Centurion, from Rotterdam	Typhoid Fever ...	Notification received to the effect that George Mayne, age 27 years, was admitted to the Hamadryad Hospital Ship, Cardiff, on September 15th, suffering from Typhoid Fever. The vessel had sailed before receiving notification.
September 18th ...	Barque Orient, from Hernosand	Typhoid Fever ...	Notification received to the effect that Otto Carl Andersen, A.B., was admitted to the Hamadryad Hospital Ship, Cardiff, suffering from Typhoid Fever. The vessel had sailed before receiving notification.
October 25th ...	S.S. Mercia, from Bermuda via Aarhus	Malarial Fever ...	The Master reported that Charles Suffien, A.B., age 24 years, was suffering from Malarial Fever. Medically attended on board.

The Public Health Act, Section 110, requires that every ship (except those belonging to Home or Foreign Governments) shall be treated as a house, but this condition is somewhat difficult to deal with literally, as a ship is so different in shape, in the materials used in construction, and the size of living spaces. The regulations of the Merchant Shipping Acts that apply to various matters of construction, measurements, registration, etc., also have to be observed, and the different conditions to which ships are exposed must be taken into account.

In complying with the requirements relating to sanitary conditions all ships are inspected on arrival at the Customs Boarding Station in order to ascertain the existing conditions as to cleanliness, offensive deposits, effuvium affecting crew spaces from holds, peaks, lockers, closets, bilges, etc., the keeping of all living spaces in dry and healthy condition as far as possible, and to see that all means of drainage, pipes, scupper, port, etc., are kept in proper order.

Also to ensure that good drinking water is provided, and that the storage vessels are in wholesome condition, to deal with any bad food supply that may be found and intended for the food of man, to prevent overcrowding of crew spaces, and to require the prompt repair of all dilapidations, defects, or other insanitary condition affecting the health of the occupiers of such living spaces.

INSPECTION OF SHIPPING.

During the year 1899, 2,790 vessels were inspected. 1,782 were found in a fair or good condition, and 1,008 in a more or less defective or insanitary state.

Two hundred and fifty-three written notices were served, and seven hundred and fifty-five verbal orders were given.

The systematic inspection of shipping was efficiently performed by the Chief Inspector, W. J. Hopkins, and by the Assistant Inspectors, J. Davies and T. Finley.

The annexed tables will afford evidence of useful work performed by the Officers of the Port Sanitary Authority, and will show that the inspection of shipping in the Port has resulted in a great improvement in the sanitary condition of the floating population.

As a rule very little difficulty was experienced in obtaining compliance with the requirements of the Inspector.

The following table shows the number of vessels, foreign and coastwise, inspected during the year :—

TABLE III.

		<i>Number inspected.</i>	<i>Number defective.</i>	<i>Number of orders issued.</i>
Foreign.....	{ Steamships ...	1,304	489	489
	{ Sailing Ships ...	92	36	36
		1,396	525	525
Coastwise ...	{ Steamships ...	1,249	421	421
	{ Sailing Ships ...	145	62	62
		1,394	483	483
Total Foreign and Coastwise ...		2,790	1,008	1,008

TABLE IV.

The following table shows the number and nationalities of the vessels inspected during the year :—

<i>Nationality.</i>			<i>Steam.</i>	<i>Sail.</i>	<i>Total Steam & Sail.</i>
American	...	...	...	1	1
Austrian	...	...	21	...	21
Belguim	...	..	7	...	7
British	...	...	2098	169	2267
Danish	...	...	19	3	22
Dutch	...	...	13	1	14
French	...	...	108	11	119
German	...	...	45	28	73
Greek	...	...	39	...	39
Italian	...	...	63	1	64
Norwegian	...	...	92	20	112
Portuguese	...	...	1	...	1
Russian	...	...	9	2	11
Spanish	...	...	22	...	22
Swedish	...	...	15	2	17
Total			2552	238	2790

TABLE V.

During the year the forecastles, berths, water closets, etc., in 527 British Ships and 172 Foreign Ships, respectively, have either been cleansed, painted, or lime-washed.

The following table shows their nationality :—

Austrian	...	...	...	10
Belgian	...	...	...	2
British	...	...	...	526
Danish	...	...	...	3
Dutch	...	...	...	2
French	...	...	...	39
German	...	...	...	13
Greek	...	...	...	18
Italian	..	...	...	33
Norwegian	..	...	...	34
Portuguese	...	...	...	1
Spanish	...	...	...	13
Swedish	...	...	...	4
Total				698

TABLE VI.

The Structural Defects included the following:—

Defective side ports	...	...	...	64
„ water closets	...	...	...	26
„ bulkheads and floors in crew's space	...	..	...	18
„ cable casing in crew's space...	...	...	...	21
„ or unlined iron decks over berths	...	...	...	21
„ stoves and funnels in crew's space	...	...	...	5
„ ventilation	...	...	...	23
„ and dirty water casks and tanks	...	...	...	9
„ lighting	...	...	...	3
„ ventilators in crew's space	...	...	...	2
„ drainage	...	...	...	18
Leaky decks over berths	...	...	...	26
Foul bilges and peaks	...	...	...	17
Ship's stores kept in crew's space	...	...	...	37
Foul accumulation	...	...	...	19
Insufficient accommodation	...	...	...	1
Total	...	...	...	311

NUISANCES REMOVED FROM QUAYSIDE.

Offensive matters	...	...	32
Accumulations of rubbish...	...	...	35
			<hr/> 67

In concluding my report, I would again draw your attention to the structural defects and sanitary condition observed on board vessels: first, from dampness to bedding and seamen's effects in crew's quarters, caused by the sweating of ironwork; secondly, communication between the quarters used by the crew and water closets; thirdly, the communication between water closets and places used for the storage of food supplies; fourthly, the storage of paints in bow lockers; and fifthly, defective drainage and inefficient ventilation.

In the interests of our seafaring community, the remedying of these defects is of the greatest importance, and they have always received the special attention of your Officials, as a result of which the nuisances have generally been abated previous to the vessels leaving this Port.

My thanks are due to the Port Sanitary Inspector and his Assistants for their unremitting attention in the performance of their duties. To the Collector of Customs and his various Officials (especially those to the waterguard with whom we are so intimately associated) I must also express my thanks for the kind courtesy and assistance which the Officers of your Authority have invariably received.

I have the honour to be, Gentlemen,

Your obedient Servant,

GEORGE NEALE, L.R.C.P.,

Medical Officer Port Sanitary Authority

